

Utility Infrastructure Update

Senate Bill 684

September 8, 2004

Dominion Virginia Power

Control Area

- Most of Northern, Central, and Eastern Virginia and Northeastern North Carolina
- Virginia roughly 95% of Peak Load
- Includes VMEA and most VA Coop Load
- Summer Peaking
- 1.8% Annual Peak Load Growth (2004-2013)

Dominion Virginia Power

Generation Capacity Planning Assumptions

- Continued DVP Supply/Reserve Responsibility for Native Load (Retail, VMEA, and ODEC's NA & Clover)
- DVP Membership in PJM
- Expected PJM Reserve Margin Requirement of 15%
- Effects of Non-coincident Peak Load and Forced Outage Rate Adjustment Result in DVP Reserve Margin Target of 12.5% (versus traditional 18.5% to 21%)
- New Capacity Requirements Met with Market Purchases

Dominion Virginia Power

Projected Peak Load and Net Capability (MW)

	<u>2004</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Control Area	17,580	18,671	19,579	20,629
DVP Obligation	16,538	17,401	18,154	19,055
Net Capability	18,878	19,569	20,418	21,432
Res. Margin (%)	14.2	12.5	12.5	12.5

Dominion Virginia Power

Power Supply Resources Net Summer Capability – MW

	<u>2004</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Owned Generation	15,515	15,634	15,771	15,771
L-T Purchases (NUGs)	3,113	2,905	2,697	2,621
Market/Undesignated	<u>250</u>	<u>1,030</u>	<u>1,950</u>	<u>3,040</u>
Total Net Capability	18,878	19,569	20,418	21,432

Dominion Virginia Power

Projected Firm Capacity Resources By Fuel Type
(Including L-T Firm Capacity Purchases)
Net Summer – MW

	<u>2004</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Nuclear	3,467	3,467	3,467	3,467
Coal	6,144	6,144	5,999	5,999
Nat. Gas/Oil	6,786	6,638	6,638	6,638
Hydro/Other	2,230	2,287	2,361	2,285
Market/Undesignated	250	1,030	1,950	3,040

Dominion Virginia Power

Reserve Margin Excluding Market/Undesignated Resources

	<u>2004</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Planned Reserve Margin	14.2%	12.5%	12.5%	12.5%
Planned Reserves (MW)	2,340	2,168	2,264	2,377
Market/Undesignated (MW)	250	1,030	1,950	3,040
% of Total Net Capability	1.3%	5.3%	9.6%	14.2%
Reserve Margin Excluding Market/Undesignated	12.6%	6.5%	1.7%	(3.5)%

AEP System – East Zone

Control Area

- Southwest Virginia and Parts of Indiana, Kentucky, Michigan, Ohio, Tennessee, and West Virginia
- Virginia roughly 15% of Peak Load
- Includes most of the Load of Blue Ridge Power Agency Members (Except Bristol)
- Summer Peaking
- 1.8% Annual Peak Load Growth (2004-2013)

AEP System – East Zone

Generation Capacity Planning Assumptions

- AEP Supply Responsibility Excludes Most of Blue Ridge Power Agency Load
- Continued Operation of AEP's 5 Member Interconnection Agreement
- AEP Membership in PJM
- AEP Reserve Margin of 12% to 12.5%
- New Capacity Requirements Met with Market Purchases / Undesignated New Generation Capacity

AEP System – East Zone

Projected Peak Load and Net Capability (MW)

	<u>2004</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Control Area	23,446	24,938	26,208	27,435
AEP Obligation	22,436	22,698	23,543	23,352
Net Capability	25,871	25,505	26,387	26,229
Res. Margin (%)	15.3	12.4	12.1	12.3

AEP System – East Zone

Power Supply Resources
Net Summer Capability – MW

	<u>2004</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Owned Generation	24,457	24,418	24,406	23,205
L-T Purchases	1,414	1,087	1,087	1,087
Market/Undesignated	<u>-</u>	<u>-</u>	<u>894</u>	<u>1,937</u>
Total Net Capability	25,871	25,505	26,387	26,229

AEP System – East Zone

Reserve Margin Excluding Market/Undesignated Resources

	<u>2004</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Planned Reserve Margin	15.3%	12.4%	12.1%	12.3%
Planned Reserves (MW)	3,435	2,807	2,844	2,877
Market/Undesignated (MW)	-	-	894	1,937
% of Total Net Capability	-	-	3.4%	7.4%
Reserve Margin Excluding Market/Undesignated	15.3%	12.4%	8.3%	4.0%

Delmarva Power & Light Company

- * 101 MW Projected 2004 VA Retail Peak Load
- * Projected Load Growth – 2.7% (2004-2013)
- * Full Requirements Contract with Conectiv Energy Supply
- * Termination Notice Effective 1/1/05
- * Preparing to Issue Competitive RFP

The Potomac Edison Company

- * 520 MW Projected 2004 VA Retail Summer Peak Load
- * Projected Load Growth – 1.2% (2004-2013)
- * Full Requirements Contract with Allegheny Energy through 6/30/07
- * Competitive RFP after 6/30/07

Old Dominion Electric Cooperative

Projected Summer Peak Load and Net Capability (MW)

	<u>2004</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Peak Load	1,460	1,594	1,757	1,936
Net Capability	1,656	1,823	1,996	2,195
Res. Margin (%)	13.4	14.3	13.5	13.4

Old Dominion Electric Cooperative

Power Supply Resources Net Summer Capability – MW

	<u>2004</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Owned Generation	1,197	1,678	1,681	1,685
Designated Purchases	459	145	148	151
Market/Undesignated	<u>-</u>	<u>-</u>	<u>167</u>	<u>359</u>
Total Net Capability	1,656	1,823	1,996	2,195
Reserve Margin Excl. Market / Undes.	13.4%	14.3%	4.1%	(5.2)%

VMEA and Front Royal

- * 317 MW Projected 2004 VA Summer Peak Load
- * Projected Load Growth – 2.0% (2004-2008)
- * VMEA Has Full Requirements Contract with DVP
(Expires 12/31/10)
- * VMEA Has Approximately 93 MW of Diesel and Natural Gas Turbines for Peak Load Management
- * Front Royal Has Full Requirements Contract with DVP
(Expires 6/30/06)

Blue Ridge Power Agency

- * 612 MW Projected 2004 VA Summer Peak Load
- * Projected Load Growth – 1.1% (2004-2008)
- * Full Requirements Contracts with Cinergy and AEP
- * Contract Expiration Dates Vary by Member
(12/31/04, 6/30/05, and 7/30/07)
- * No Dependable Generation Capacity

New VA Generating Facilities

Applications For Certificate (since 1996)

8 Projects Approved / Constructed:

Combustion Turbines	2,234 MW
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Combined Cycle (Net)	397 MW
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2 Projects Approved / Under Construction:

Combustion Turbines	696 MW
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Combined Cycles	900 MW
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New VA Generating Facilities

Applications For Certificate (since 1996)

6 Projects Approved / No Construction:

Combustion Turbines	1,345 MW
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Combined Cycles	2,520 MW
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7 Applications Withdrawn:

Combustion Turbines	330 MW
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Combined Cycles	5,110 MW
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New VA Generating Facilities

Projects Announced / Applications Not Filed

4 Projects Announced / Pending:

Combustion Turbines	900 MW
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Combined Cycles	800 MW
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Coal Unit	550 to 1600 MW
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5 Projects Announced / Terminated:

Combined Cycles	3,870 MW
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